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AUTHOR Lewis, Raymond J., Jr.
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ABSTRACT

A combination of demographic, economic, and technological factors has led to a recent growth in adult learning that is likely to intensify in the next decade. As the members of the baby boom population move further along in their pursuit of careers, they will encounter considerable limitations in their upward occupational mobility. In addition, members of subsequent generations will be at an even greater disadvantage in their efforts to dislodge experienced workers of the baby boom generation who are entrenched in positions above them. The prospect of these eventualities has implications not only for postsecondary institutions but also for secondary schools. As the terminus of the compulsory school system, secondary schools will increasingly be called upon to prepare their graduates to succeed in a world requiring almost constant learning and adaptation. Particularly needed will be efforts to teach youth about adult development and learning patterns; to help youth arrive at realistic expectations for their lives as adults, and to encourage youth to think about lateral as well as vertical mobility, sources of satisfaction beyond work, and the possibility of longer periods in noncareer-level jobs. Researchers, policy makers, and practitioners alike need to become involved in devising and implementing strategies for encouraging lifelong learning skills among high school youth. (MN)

EDUCATION & WORK PROGRAM
PROJECT REPORT

Lifelong Learning in America:
an Overview
with Implications for Secondary Education

Raymond J. Lewis, Jr.

Coordinated by
Marilyn L. Clark
Education and Work Program
Northwest Regional Educational Laboratory
710 S. W. Second Avenue
Portland, Oregon 97204

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Larry McClure, Director
Education and Work Program
Northwest Regional Educational Laboratory
710 S.W. Second Avenue
Portland, Oregon 97204
(503) 248-6891


Education & Work Program
Northwest Regional Educational Laboratory
710 S.W. Second Avenue, Portland, Oregon 97204

Lifelong Learning in America:
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Writing at the beginning of the 1970s, members of the Newman Task Force on Higher Education called for "...new approaches to higher education--not only new types of colleges with new missions but also new patterns of going to college." They went on to say that "only when basic changes occur will many segments of the American population find attendance at college a useful learning experience." (Report on Higher Education, 1971, p. IX) Many of the improved practices recommended by the Task Force have yet to be implemented. However, from the perspective of the early 1980s, the American educational community appears profoundly altered in less than a decade.

Unlike the 1960s when young collegians were the stimulus for many institutional changes, the 1970s was a decade characterized by institutional response to adult learners. The "quiet revolution" of the 1970s may have gone virtually unnoticed by the mass media and the public at large, but there are few, if any, educational administrators who have not been affected by the need to adapt facilities, schedules and curricula, as well as recruitment, admissions and financial aid policies to accommodate the needs of adult learners.

Looking at formal institution-based learning we find ample evidence why the 1970s may become known as the "decade of the adult learner." Between 1969 and 1978, the number of participants in adult education (17 years of age or older, not full-time high school or college students) increased from 13,041,000 to 18,197,000 (National Center for Educational Statistics (NCES), 1980, Table 1, P.1)*. If we look only at adults over 25 years of age, we find a 24.3 percent increase in the proportion of students in this age bracket enrolled in postsecondary institutions between 1972 and 1978. During the same period this over 25 group grew from 28 to 34.8 percent of the postsecondary student population (Miller, 1980, p.16). This means that over a third of all postsecondary students are adults. An additional indication of the impact adults are having on postsecondary institutions is the near doubling of institutions sponsoring non-credit activities in adult and continuing education between 1968 (1102) and 1976 (2225). Overall registration in these courses increased 57 percent in the same period. (NCES, 1978, pp. 106-7)

A more subjective indication of the impact adult learners are having on American education is the increasing familiarity and acceptance of the term "lifelong learning." The imprecision of the term may, in part, explain why it has been so readily embraced by a broad cross-section of educational and social service organizations.

The term "lifelong learning" seems to defy precise definition. The Lifelong Learning Project, in its 1978 report to the U.S. Congress, defined it as "the process by which individuals continue to develop their

* The 1978 figure is not precisely comparable to the 1969 data because it explicitly includes those in occupational programs of six months or more duration. This category was not specifically identified in 1969. Adults 35 years of age and older were not included in 1969.

knowledge, skills and attitudes over their lifetimes." (Lifelong Learning Project, 1978, p. iv) Whether one prefers this individual-oriented definition or a more policy-oriented one focusing on activities which facilitiate learning by individuals (Peterson, 1980, p. 5), it will be difficult, if not impossible, to arrive at a consensus among all those who somehow feel invested in the concept. Even though some consider lifelong learning to encompass all learning from cradle to grave, this discussion will only focus on learners beyond compulsory school age.

For all its vagueness, the concept of "lifelong learning" has some definite advantages for those concerned with meeting adult learning needs:

- It is broad enough to encompass all the underserved populations to whom educational services have gradually been extended as well as the traditional undergraduate population.
- More than ever before, it focuses attention on the "learner" and the "learning" rather than on the "institution" and the "education."
- It is a broad enough conceptual tool to encompass learning that occurs in various settings: institutional settings, both school (college, university, proprietary, etc.) and non-school (business, unions, churches, etc.), and informal settings--home, community, mass media, etc.
- It serves as a rallying point for diverse interests within postsecondary education and the community at large that are concerned about adult needs.
- It implies a more dynamic view of adulthood that is consistent with recent theoretical and research efforts on adult development and learning.

Changing Environment

Whether or not lifelong learning continues to have utility as a conceptual framework, adult learning is sure to play a central role in the American educational scene for the foreseeable future. Some of the

developments in American society that seem to account for the recent growth in adult learning are likely to intensify in the next decade. A combination of demographic, economic and technological factors contribute to this expanding adult learning trend.

The most obvious factor affecting adult learning patterns is that the average age of the American population continues to rise. Increased life expectancy and declining birthrates account for the general trend, but it is the post-World War II baby boom that most directly affects education. The baby boom population bulge has already moved through the elementary and secondary school system and is almost entirely beyond traditional college-going age. In 1980 those at the beginning of the baby boom are 34 years old while those at the end are 19 (U.S. Census, 1976 P.541). This segment of the population will continue to expand the pool of potential adult learners for many years to come.

Another aspect of the demographic trends which accounts, in part, for the increased responsiveness of the postsecondary education community to adult learners is the decline in the traditional 18-22 year old "college-age" cohort. The number of 18 year olds in the population will decline throughout the 1980s before leveling off around 1991 at approximately 73 percent of the number in 1979 (Bowman, 1980, p.2). During the 1970s when portions of the baby boom population were still within the traditional college age, there was a 44 percent increase in the 25-34 year old group compared to only an eight percent increase in the 18-24 year old group (Cross 1979, p.78). Whether or not adult learners' participation patterns continue to rise--and the data suggest they will--most postsecondary institutions can be expected to focus

increasing attention on adult learners in the next fifteen years in efforts to fulfill their missions and avoid substantial retrenchment due to loss of traditional clientele.

The economic impact on adult learning in America resulting from the passage of the baby boom population bulge into the job market is likely to be felt well into the next century. As members of this large group move further along in their pursuit of careers, they will encounter considerable limitations on their upward occupational mobility. The predicted "promotion squeeze" will result as they find themselves in competition for the relatively limited number of preferred positions vacated by previous smaller generations (Cross, 1978, pp. 2-3). This situation is likely to be exacerbated by the entry of even more qualified minority group members and women into the job market. Because all of these competitors will have higher levels of educational attainment, it is reasonable to assume they will bring with them higher occupational expectations, thereby adding to the competitiveness of the job market (Stern, 1977, p. 83).

Individual adults caught in this squeeze are likely to respond in some predictable ways which have implications for postsecondary education. K. Patricia Cross maintains that "some career pipelines will become severely congested, forcing mid-career changes as well as a scramble for the competitive advantage presumably found in further education." (Cross, 1978, pp. 2-3) While some seek a better chance for upward mobility, others are likely to move laterally by changing careers in hopes of finding a satisfactory match between their own needs and opportunities in the job market. Still others may respond by seeking a

greater portion of their life satisfaction outside their jobs through leisure and/or educational pursuits (Stern, 1977, pp. 86-88).

One of the long-term consequences of the "promotion squeeze" is that young workers from subsequent generations will be at a disadvantage in their efforts to dislodge experienced workers of the baby boom generation who are entrenched in positions above them. The already scarce preferred career positions will be available only to those with the highest level educational attainment, and as a whole, younger workers will be forced to hold onto lower skilled jobs for much longer periods before pursuing their careers (Sterns, 1977, pp. 84-86).

Even among those with high levels of educational attainment, many will find themselves accepting jobs that can be performed adequately by individuals with less preparation. James O'Toole refers to this disjuncture between educational preparation and job demands as "underemployment" and cites numerous studies estimating it already characterizes 30-80 percent of the workforce (O'Toole, 1977, pp. 36, 61). If this is an accurate portrayal of the world of work before the full impact of the baby boom generation is felt in the job market, then this country faces some severe problems in the next few decades. Youth armed with ever higher levels of educational attainment, and the accompanying ambitious career expectations, are more likely to encounter job stagnation, underemployment, boredom and low morale than they are the preferred jobs to which they aspire. The prospect of this eventuality has implications not only for the postsecondary institutions that many of these adult workers are likely to turn to for assistance, but also for the elementary and secondary schools that play such a central role in shaping attitudes, skills and career expectations.

These economic trends affect adult learning patterns in other ways also. An example is the response of some employers, professional associations and policy-makers to the ever larger pools of qualified workers. Some employers are "needlessly raising the credential requirements for jobs--without upgrading the demands, challenges, or rewards of these jobs." (O'Toole, 1977, p. 64) In addition, a growing number of states and professional associations are requiring compulsory continuing education courses in order for individuals in certain professions to retain their license or maintain their specialty status. Competency maintenance and currency are clearly more appropriate for some professions than others. However, abuse of the general principle may lead to a proliferation of "compulsory" and "mandatory" adult education that K. Patricia Cross characterizes as "the threat of a joyless learning society." (Cross, 1978, p. 2) Regardless of whether this controversial trend continues to grow--as it seems likely to do--it is already a significant component of the lifelong learning scene in America.

The rapidly accelerating pace of technological change and its associated information explosion continue to motivate many adults to pursue additional learning. While the need to keep up with new knowledge affects adults in their leisure pursuits, family life and community responsibilities, it has its greatest impact upon their career development. In a recent survey of adult learners, Aslanian and Brickell found that of those who cited life changes (as opposed to learning for its own sake) as the type of event which triggered their participation in adult education, 56 percent said these events were job and career related. (Aslanian and Brickell, 1979, p. 50)

The knowledge and information explosion is even challenging traditional notions about the nature and purpose of the entire educational process. The view that learning is largely an activity of the first two decades of life and that the role of the educational system is to provide all necessary knowledge and skills to live the other five or six is no longer appropriate. Nevertheless, it continues to linger on. As Malcolm Knowles observes:

> "...the rapidly accelerating pace of change in our society has proven this doctrine to be no longer valid. Facts learned in youth have become insufficient and in many instances actually untrue; and skills learned in youth have become outmoded by new technologies. Consequently, adult years become years of creeping obsolescence in work, play, and in understanding of self and in understanding of the world." (Knowles, 1970, p. 23)

Efforts to overcome these feelings of obsolescence seem to be among the factors motivating many adults to pursue both formal and informal opportunities.

Adult Learning

Before looking more closely at who the adult learners are and what it is they are learning, it is useful to clarify what we mean by adult learning. Essentially we are talking about individuals 17 years of age or older who are not full-time high school or college students and are pursuing learning either within an institutional setting or informally on their own. Institution-based learning includes school settings (colleges, universities, graduate and professional schools, public schools, adult education, proprietary schools, etc.) and non-school settings (business, labor unions, government, community organizations, professional associations, etc.). Informal learning refers to the individual learner taking advantage of written material, travel, mass media and other convenient learning resources. Until recently

educational researchers focused almost entirely on institution-based learning, but in the past decade much has been learned about the nature and scope of informal learning activities undertaken by individual learners.

Those adults most likely to participate in institution-based learning opportunities are "white high school graduates, between twenty-five and thirty-four years of age, employed more than thirty-five hours per week, with annual family incomes of $15,000 to $25,000. Female participants are slightly more numerous than males." (Cross, 1979, p. 80) The variable that is most useful in predicting participation in institution-based adult learning is previous level of educational attainment (Cross, 1979, p. 93). Because the interrelationships among educational attainment, income, occupational status and race are so consistent, it is fair to say that "adult education is serving the advantaged classes out of proportion to their numbers in the population." (Cross, 1978, p. 81)

We can tell what topics adults prefer to learn about from the expressed interests of potential learners and the actual choices of enrolled students. All of the surveys to date of adult learner needs indicate they are interested in vocationally and practically oriented activities which enable them to accomplish some goal (Cross, 1979, p. 124). Most often the reasons are tied specifically to jobs and careers. Of all the courses actually taken by adult learners in 1978, job-related reasons were given as explanation in 52.5 percent of the cases (NCES, 1980, table 23, p. 4). "Courses providing specific skills that will be

useful on a job" was the most often selected statement out of 75 scale items in a survey of adult students in New York State community colleges. (Mangano and Corrado, 1980, p. 16)

Public community colleges, in fact, play a very central role in adult learning in America. Richard Peterson maintains that, of all the deliverers of educational services, the public community colleges "by all accounts have the best track record of serving older and other nontraditional populations" (Peterson, 1979, p. 21). Considering the relatively recent emergence of the public community college movement, it is remarkable that its institutions have already come to be the leading sponsor of adult learning activities. Four-year colleges, universities and employers, on the other hand, account for a substantial but gradually declining proportion of adult participants (See Table I).

TABLE I

Participation in Learning Activities

Provided by Various Sponsors

(in percentage)

	1969	1972	1975	1978
Public grade school or high school	15.1	14.0	10.6	11.7
Two-year college or vocational-technical institute	11.9	16.3	17.7	18.6
Private trade or business school	11.5	8.9	3.7	8.8
Four-year college or university	21.7	21.4	19.1	18.4
Employers	17.4	16.6	15.3	13.7
Community organizations	11.9	12.7	10.5	10.9
Labor organization or professional association	----	5.5	6.1	4.3
Private tutor	----	6.0	6.9	6.4
Hospital	.3	.4	----	----
Government agency	----	----	----	10.2
Other	19.3	9.4	7.7	9.8
Not reported	.4	.6	.4	2.7

Source: NCES data for 1969, 1972, 1975 as presented in Cross, 1979, p.79 and NCES, 1980, Table 12, p.p.4, 4a.

In many ways, the socioeconomic and attitudinal profile of adult learners looks remarkably similar to that of traditional-aged college students (Cross, 1978, p.4). However, in addition to age, the way these two groups differ most is in their pattern of attendance. While only 10 percent of the 18-21 year old students attend less than full-time, approximately two-thirds of all adult students attend on a part-time basis. This predominantly adult contingent of part-time learners has nearly doubled since 1968 and now constitutes 40.8 percent of all post-secondary education enrollments. Most are to be found at two-year colleges where they account for an incredible 61.3 percent of the student population compared with 29.3 percent at four-year institutions. Part-time learners now account for over 30 percent of all undergraduates and about 60 percent of all graduate students, and an estimated 85 percent of students not classified by a degree status (Miller, 1980, p. 16).

The fact that so many adults learn on a part-time basis serves as a reminder that these are people with family, career and community responsibilities who are juggling many variables in order to pursue their learning goals. How many other adults who want to participate in organized learning activities but do not, is a question that continues to occupy the time of many adult educators and researchers.

The data indicate that many adults are deterred by lack of time, transportation, money or childcare as well as by job and family responsibilities. While it is clear that such situational barriers are genuine obstacles for many adults, we know much less about the attitudinal or

dispositional barriers that are internal to the individual and are much less socially acceptable as reasons for not participating. (Cross, 1979, p. 106, Rubenson, 1978, p. 24)

In spite of increasingly flexible institutional policies, the barriers that educators have the most control over are still reported by adults as significant obstacles. These are the institutional policies affecting scheduling and location of classes, availability of interesting and relevant courses, program and registration procedures as well as information and counseling. In regard to the latter two obstacles, adult learners have benefitted immensely from the services of programs that have evolved outside the institutions themselves. This expanding network of community-based and state-wide programs which offer neutral information, counseling and referral services (e.g. educational brokers, Educational Information Centers) is the type of learner-oriented service many institutions have been unable or unwilling to provide.

Whether it is a matter of barriers to participation or personal preference (or both), there are many adults each year who undertake significant learning projects on their own. Indicators are that anywhere from 70 to 100 percent of adults conduct at least one major learning effort per year. A typical learning effort involves approximately one hundred hours. Surveys indicate the typical adult learner conducts five such projects per year for a total of 500 hours per year. Allen Tough, a leading researcher in this field, defines a learning project as "a highly deliberate effort to gain and retain a defined area of knowledge or a skill, or to change in some other way." Under his definition, a series

of related learning episodes must add up to at least seven hours and may include self-planned learning, classroom learning as well as learning guided by a friend, peers, or programmed instruction. (Tough, 1978, p. 9)

Why are so many people learning on their own rather than relying on institutions? There is limited information available to answer this question. However, a small scale but carefully designed survey by Patrick R. Penland offers considerable insight into the motives of those who prefer to learn on their own instead of taking a course. A sample of such learners gave the following responses (ranked by order of importance) when asked why they preferred learning on their own instead of taking a course:

- Desire to set my own pace
- Desire to use my own style of learning
- I wanted to keep the learning strategy flexible and easy to change
- Desire to put my own structure on the learning project
- I wanted to learn this right away and couldn't wait until a class might start
- I didn't know of any class that taught what I wanted to know
- I don't like a formal classroom situation with a teacher
- Lack of time to engage in a group learning program
- Transportation to a class is too hard or expensive
- I don't have enough money for a course or class

(The last four items received considerably lower rankings than the first six.) (Penland, 1977, p. 32)

When asked in which locations they prefer to engage in these major learning efforts, the overwhelming response from these same learners was, not surprisingly, their homes. On-the-job training was rated second followed by the outdoors, discussion groups, classrooms, libraries and public events such as lectures and concerts. (Penland, 1977, p. 36) The subject matter and the learning activities for these learning projects

are in most cases (73 percent) planned by the individual learner. In other cases the planning function is handled by professionally led groups (10 percent), peer groups (4 percent), professional one-to-one sessions (7 percent), friends in one-to-one sessions (3 percent) and pre-programmed resources (3 percent). (Tough, 1978, p.10)

One of the most interesting findings coming out of research into self-initiated learning is that, unlike institution-based adult education, the participation rates do not seem to differ much along demographic or socioeconomic dimensions. A 1975 survey of adult learning projects in Nebraska found no differences in the number of projects or the number of hours based upon age, sex, ethnicity, or rural or urban residence. The only differences that did show up were in the number of projects (but not the hours spent on each project) undertaken by individuals from different socioeconomic levels. (Heimstra, 1975 as cited in Tough, 1978, p. 12)

In the absence of additional research into this type of informal learning, it is possible only to suggest hypothetical explanations for such findings. Maybe all adults, regardless of educational attainment or socioeconomic status, have roughly the same appetite for learning, but their preferred <u>method</u> of learning is directly related to successful learning experiences in their youth. If they found institution-based classroom settings less effective or supportive than peers or older community residents, then as adults they may be more likely to prefer learning approaches that emphasize experiential and verbal methods rather than didactic and written approaches. (Kinnick, 1979, pp. 23-24)

Correspondingly, those with high educational attainment who have been successful in the formal classroom milieu, may have less reason to turn to self-planned learning. This is a subject that clearly deserves much more systematic attention.

Adult Development and Learning

In the not-so-distant past when adult learners on college campuses were the rare exception rather than the rule and when the student body was uniformly young, it may have been more appropriate to assume a homogeneity of values, motives and life-problems for all students. As more is learned about adult development and learning patterns, it becomes increasingly clear that among adults there is considerable variation in motives for enrolling, learning styles, learning capacities and support needs. The additional years of life-experience in family, career and community that adults bring to the learning process continue to challenge traditional educational assumptions and practices. Fortunately, adults also enormously enrich the learning environment.

The expanding body of theoretical and research literature on adult development and learning offers many insights into the behavior and attitudes of adult learners. Growing out of the works of Bernice Neugarten, Eric Ericson, Daniel Levinson, Carl Rogers, Roger Gould and others emerges a developmental view of adulthood characterized by identifiable patterns, phases or stages. "Life Stages," as they are often referred to, can be thought of as "age-linked periods of stability and transition embedded in our experience of living." (Weathersby, 1978, p. 19)

The adaptative behavior which accompanies life stages often involves significant learning experiences. It is during these periods of transition and stability that adults often turn to educational experiences to facilitate their adaptive learning. As Rita Weathersby suggests, educational institutions appear to serve as "support structures for life transitions." (Weathersby, 1978, p. 19)

There is currently no real consensus on the exact nature and timing of life stages or on the role that educational experiences play in the process. However, research in this area continues to shed light on adult learning. A recent study of adult learners by Aslanian and Brickell found that 83 percent of the sample described some past, present or future change in their life as the reason for their learning. Fifty-six (56) percent of the adults cited career changes (e.g., new job, changing job) and 35 percent cited family changes (e.g., divorce, death of a spouse) as events triggering their learning. The authors conclude that adults learn so they can move from some current status to some future status and that learning is seen as an activity which can help them perform well in the new status. (Aslanian and Brickell, 1979, pp. 42-50)

Popular misconceptions about adulthood and aging not only have discouraged many potential adult learning participants as well but also have impeded adaptation of existing programs to adult needs. Perhaps the most damaging impression has been the assumption that mental ability severely deteriorates throughout adulthood. While cross-sectional studies of learning ability do suggest there is a gradual decline during adulthood, "...longitudinal studies of the same people over the years indicate great

stability during much of adulthood and even increases for the more able adults and for familiar topics." It may be necessary to make some adjustments in learning strategies but "almost any adult is able to learn almost any subject given sufficient time and attention." (Knox, 1977, p. 464)

Implications for Secondary Education

With an ever increasing number of adults finding the need to pursue learning and with demographic and employment trends indicating future generations of adults will have even more reasons for learning, what are the long-term implications for the traditional providers of education? Most postsecondary institutions are likely to continue to adapt to the needs of adult learners by offering more flexible program options while others continue primarily to serve the diminishing pool of 18-22 year olds. Elementary schools are not likely to be much affected. However, as the terminus of the compulsory school system, secondary schools will increasingly be called upon to prepare their graduates to succeed in a world requiring almost constant learning and adaptation.

Given the historical tendency in this country to constantly expand the mission of public education (e.g., integration, sex education, catching up with the Russians, etc.) there are good reasons to hesitate suggesting any new role for secondary education that relates to the lifelong learning needs of its graduates. However, in view of the impact of current economic and demographic factors on adulthood, there seems to be no more strategically placed social institution than the secondary school to help youth understand and adapt to these realities.

Recognizing that many high schools are already making special efforts to reflect these changes in their curriculum, we shall consider some actions that might be undertaken to better prepare youth for life in a rapidly changing, competitive environment.

Youth need to learn about adult development and learning patterns. By providing a more dynamic developmental view of adulthood as an alternative to the static adult stereotype which prevails among so many youth, secondary school educators could help prepare them for the stages and transitions they are likely to experience. Such an approach could be combined with descriptions of how adults cope with such life changes (e.g., career changes, learning) and what support services are available in the community. Health and psychology are two discipline areas into which such topics could be integrated.

Another contribution the secondary schools could make is to help youth arrive at realistic expectations for their lives as adults. Without discouraging ambition and initiative, providing an accurate picture of future job and career conditions would be an important first step. Unless there is a major economic expansion or significant restructuring or redistribution of jobs, the outlook for some years to come is rather discouraging and youth should at least be apprised of this reality.

In view of the escalating competition for the preferred jobs in our society, youth need to be encouraged to think about lateral as well as vertical mobility, sources of satisfaction beyond work, and the possibility of longer periods in non-career level jobs. Female students, in

particular, need to be encouraged to think about the world of work since it is estimated that by 1990, 60 percent of all adult women will be working instead of the current 51 percent. (Aslanian, 1980, p.63)

If, as it appears, success as an adult will increasingly depend upon the individual's ability to cope in a competitive and rapidly changing environment, then learning coping skills early in life takes on even greater importance. Chief among these is learning how to learn. Youth need to know not only what educational resources are available to assist them, but they also need to develop skills such as self-assessment, goal-setting, self-planning, decision-making, and information-seeking and processing which will help make future learning possible. Like the basic verbal and mathematical skills so central to secondary school curricula, lifelong learning skills are prerequisite to sustained success beyond high school graduation.

Although they were written almost twenty-five years ago, the following thoughts of Dr. Benjamin Bloom about the "rapidly changing and unpredictable future" seem very appropriate for the educators of tomorrow's adults:

> "Under these conditions, much emphasis must be placed in the schools on the development of generalized ways of attacking the problems and on the knowledge which can be applied to a wide range of new situations, that is, we have the task of preparing individuals for problems that cannot be forseen in advance, and about all that can be done under such conditions is to help the student acquire generalized intellectual abilities and skills which will serve him well in many new situations." (Bloom 1956 as cited in Ainsworth-Land, 1979, p. 81)

In addition to skills, youth need to find out about the expanding range of learning opportunities and resources that are available to assist them as they move into adulthood. Being aware of and experienced

with the use of resources such as do-it-yourself books, public libraries, learning networks (e.g. The Learning Exchange) and home computers can prepare an individual for learning in a wide range of informal settings. Knowing where in the community to turn for educational and occupational information, career counseling, referral, financial aid and academic credit for prior learning, would prepare an individual to be a more intelligent consumer of the educational services to be found in both school and non-school settings.

Recent rapid advances in the capacity and availability of telecommunications delivery systems underline the need to prepare youth for the broad range of learning options that will be available to them. If, as the data suggest, people prefer the most flexible learning options, it is very important to equip youth with the knowledge and skills which will enable them to use television, radio, teleconferencing, micro-processors and other electronic devices that could support their learning needs. The increasing availability of commercial educational packages are opening up new opportunities for individualized learning in any institutional or informal setting.

It is obviously easier to advocate such topics be included at the secondary school level than it is to propose how they can be integrated into an already burdened discipline-based curriculum. However, there are examples of curricular approaches which have attempted to explicitly convey lifelong learning skills. Two noteworthy examples are The Michigan Life Role Competency Project and the Northwest Regional Educational Laboratory's Experience-Based Career Education Program. There is clearly a need for other similar attempts to integrate lifelong learning skills into the curriculum.

In a society which demands current knowledge and marketable skills, learning how to continue learning may be the most important outcome of a secondary education. This is particularly the case for those youths who do not go on to college after high school. As the data clearly indicate, participation in institution-based adult education is most directly related to level of educational attainment and high school graduates, the poor and the elderly are clearly underrepresented. Adult educator literature is replete with references to outreach and reaching the unserved, but by the time the non-college, high school graduate population reaches adulthood they are already largely out of reach of the formal postsecondary educational system. If they do not absorb the knowledge and skills necessary to cope as an adult while they are in secondary school, they are doubly disadvantaged because their college-going classmates will be predisposed to take advantage of the adult learning opportunities which increasingly are being used as sorting criteria in the job market. More emphasis on lifelong learning skills in secondary school might serve to counterbalance current patterns which disproportionately reward those with higher educational attainment.

It is refereshing to look at the problems of overcoming these inequities from the perspective of the secondary school rather than the college. Instead of merely focusing attention upon needs assessments and alternative outreach strategies as adult educators are so inclined to do, it is possible to consider active strategies which, if implemented, might alter the attitudes, skills and behavior with which youth move into adulthood. Much effort is expended by postsecondary institutions in the

process, encouraging individuals currently in adult status to engage in learning activities. Instead, why do we not explore approaches at the secondary level that might overcome the participation inequities so prevelant in current adult learning patterns?

Concerned educators at both the secondary and postsecondary levels have many reasons to explore strategies for encouraging lifelong learning skills among high school youth. Researchers, policy makers and practitioners alike need to be involved in devising and implementing such efforts.

One approach would be to survey current practices in secondary education which attempt to integrate lifelong learning skills, attitude and knowledge into existing discipline-based curriculum. Such an inquiry could encompass textbooks, teachers, guides, classroom teaching methods, experiential learning programs, teacher preparation curricula and inservice teacher training programs.

Programs identified through such a survey could then be examined in more detail for those which have existed for a few years or more, follow-up surveys could compare learning-related behavior of graduates with those from more traditional programs.

Comparing learning behavior in terms of level of educational attainment, socioeconomic level and career patterns may reveal what impact the curriculum changes have had on the students.

In high schools with traditional programs it should be possible to encourage teachers to integrate lifelong learning content into their curricula. By providing teachers with release time or other incentives

to prepare new classroom presentations, materials and experiential learning activities, it would be possible to conduct longitudinal studies of the behavior of graduates and to subsequently compare it with that of previously selected control groups.

There is a great deal to learn about the effects of secondary school experiences upon the lifelong learning patterns of high school graduates. If the acquisition of lifelong learning skills is as crucial to success in adulthood as the demographic and economic data suggest, then our society cannot afford to allow the current inequitable patterns to be perpetuated. The postsecondary educational community has an important role to play in providing lifelong learning opportunities, but it is not well positioned to overcome the basic inequities faced by those whose formal education ends with high school. The task of overcoming these problems will surely require cooperation between secondary and postsecondary educators, but the focus will clearly need to be at the secondary school level.

American society in general, and the education community in particular, are currently going through a transition period requiring adjustment to resource constraints more severe than any faced in the past quarter century. This is clearly a time to examine fundamental assumptions about the allocation of human and material resources.

Given the underlying concern for equal opportunity that characterizes the adult education community, it would be very ironic if, under objective scrutiny, many of its activities were judged to be contributing to, rather than ameliorating, inequities in the society's

career opportunity patterns. If continuing education increasingly becomes the key to upward career mobility for adults and if adult learning participation patterns remain unchanged, adult educators may find themselves limited to serving primarily an educated elite. Such an eventuality would be a luxury the society could ill afford and the antithesis of the philosophy underlying the concept of lifelong learning.

Adult educators cannot afford to limit themselves to merely providing more educational opportunities for those with relatively high levels of educational attainment or to pursuing futile outreach efforts designed to attract adults who, since high school, have been predisposed to avoid formal education. They need to look for ways they might combine their knowledge of adulthood with the secondary educators' expertise in teaching skills to youth. If conversations about lifelong learning are to continue to have meaning, they will have to be broadened into a dialogue among secondary as well as postsecondary educators.

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